

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Prior Application: APPLICANTS: H. INOUE et al
 Serial No. 10/083,360
 Filed: February 27, 2002

Group Art: 3746
For: GAS TURBINE COMBUSTOR AND OPERTING METHOD THEREOF

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure, the applicants inform the Examiner of the documents cited during prosecution of the parent application, Serial No. 10/083,360.

Attached is an explanation of the relevance of JP 5-172331 and JP 2001-263093 as well of a further explanation of the reference "Development of Combustor LNG. Oxygen Firing."

It is further noted that on October 30, 2003, Applicants filed a Request for Initialed PTO-1449 Form stating that JP 5-172331 reference was discussed on page 1 of the specification.

The applicants request the Examiner to initial and return a copy of the attached PTO-1449 form as an indication that the references have been considered.

Respectfully submitted,

A handwritten signature in cursive script that reads "Gene W. Stockman".

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EXPLANATION

JP 5-172331:

It discloses diffusion combustion technique of a gas turbine that is the same technical field as the present invention. However, the reference does not take into consideration NOx reduction and combustion stability. Further, it does not disclose the concept of coaxial jet flows of fuel and air injected into the combustion chamber.

JP 2001-263093

It was filed (March 17, 2000) before the priority date (August 29, 2001) of the present application, and laid-opened after the priority date (August 29, 2001) of the present application.

The reference relates to a specific gas turbine combustor in the case where methane is used as fuel. The combustor is a type wherein methane and oxygen (oxidizer) are coaxially jetted into the combustion chamber and carbon dioxide gas is recovered.

The reference discloses coaxial jet of two kinds of medium, but it does not disclose the concept that usual gas turbine fuel and air are jetted to be coaxial jet flows.

Development of Combustor LNG. Oxygen Firing

It is a document for presentation concerning the above-mentioned JP 2001-263093 and presented (January 5, 2001) before the priority date (August 29, 2001) of the present application. The content is the same as JP 2001-263093.

FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. NIP-266-04	SERIAL NO. NEW		
LIST OF DOCUMENTS CITED BY APPLICANT <i>(Use several sheets if necessary)</i>				APPLICANT H. INOUE et al			
				FILING DATE February 24, 2004			
				GROUP Unassigned			
U.S. PATENT DOCUMENTS							
* EXAMINER INITIAL	DOCUMENT	DATE	NAME	CLASS	SUBCLASS	FILING DATE <i>(If Appropriate)</i>	
	AA	RE34,962	06/1995	Shekleton et al.			
	AB	5,321,950	06/1994	Shekleton et al.			
	AC	5,339,635	08/1994	Iwai et al.			
	AD	5,651,252	07/1997	Ansart et al.			
	AE	5,722,230	03/1998	Cohen et al.			
	AF	5,899,074	05/1999	Komatsu et al.			
	AG	6,389,815	05/2002	Hura et al.			
	AH	6,481,209	11/2002	Johnson et al.			
	AI						
	AJ						
	AK						
FOREIGN PATENT DOCUMENTS							
	DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	AL	5-172331	07/09/93	Japan		<input type="checkbox"/>	<input type="checkbox"/>
	AM	2001-263093	09/26/01	Japan		<input type="checkbox"/>	<input type="checkbox"/>
	AN					<input type="checkbox"/>	<input type="checkbox"/>
	AO					<input type="checkbox"/>	<input type="checkbox"/>
	AP					<input type="checkbox"/>	<input type="checkbox"/>
OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, etc.)</i>							
	AR	H. Inoue et al, "Research & Development of Methane-Oxygen Combustor for Carbon Dioxide Recovery Closed-Cycle Gas Turbine", 2001, 3C-05-CIM.					
	AS	"Development of Combustor for LNG. Oxygen Firing", 29TH GAS TURBINE REGULAR LECTURE MEETING - COLLECTED LECTURE PAPERS, 2001, pp. 113-118.					
	AT						
EXAMINER				DATE CONSIDERED			
<small>* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							